COMMONWEALTH of VIRGINIA

DEPARTMENT OF ENVIRONMENTAL QUALITY
NORTHERN REGIONAL OFFICE
13901 Crown Court, Woodbridge, Virginia 22193
(703) 583-3800 Fax (703) 583-3821
www.deq.virginia.gov

Molly Joseph Ward
Secretary of Natural Resources

David K. Paylor
Director

Thomas A. Faha
Regional Director

September 24, 2014
Corrected item in red (Ash pond E)

Mr. Jeffrey Marcell
Senior Environmental Compliance Coordinator
Virginia Dominion Power
Possum Point Power Station
19000 Possum Point Road
Dumfries, VA 22026

Re: Dominion – Possum Point Power Station, Permit #VA0002071

Dear Mr. Marcell:

Attached is a copy of the Inspection Report generated from the Technical and Laboratory inspections conducted at Dominion - Possum Point on August 27, 2014. The compliance staff would like to thank you, Keith Homza, and Barbara Monteiro for your assistance during this inspection. This letter is not intended as a case decision under the Virginia Administrative Process Act, Va. Code § 2.2-4000 *et seq.* (APA).

Please review the enclosed report and submit in writing adequate documentation of all measures taken (including all necessary supporting documentation) to address the Request for Corrective Action no later than **October 24, 2014.** .

Your response may be sent either via the US Postal Service or electronically, via E-mail. If you choose to send your response electronically, we recommend sending it as an Acrobat PDF or in a Word-compatible, write-protected format. Additional inspections may be conducted to confirm that the facility is in compliance with permit requirements.

If you have any questions or comments concerning this report, please feel free to contact me at the Northern Regional Office at (703) 583-3882 or by e-mail at Sharon.Allen@deq.virginia.gov.

Sincerely,

Sharon Allen
Environmental Specialist II

Electronic copy sent:
Permits / DMR File, Compliance Manager - NRO

DEQ
WASTEWATER FACILITY INSPECTION REPORT
PREFACE

VPDES/State Certification No.	(RE) Issuance Date	Amendment Date	Expiration Date
VA0002071	**April 3, 2013**	**April 30, 2013**	**April 2, 2018**
Facility Name	Address	Telephone Number	Facility Name
Dominion - Possum Point Power Station	**19000 Possum Point Rd. Dumfries, VA 22026**		**703–441–3853**
Owner Name	Address		Telephone Number
Virginia Electric and Power Co.	**5000 Dominion Blvd. Richmond, VA 23060**		**804– 273–3467**
Responsible Official	Title		Telephone Number
Jeffery Marcell	**Senior Environmental Compliance Coordinator**		**703–441-3813**
Responsible Operator	Operator Cert. Class/number		Telephone Number
Keith Homza	**Chemist III**		**703–441–3814**
Facility Name	Address		Telephone Number

TYPE OF FACILITY:

DOMESTIC				**INDUSTRIAL**			
Federal		Major		Major	**X**	Primary	
Non-federal		Minor		Minor		Secondary	**X**

Revised: 06-2011

00011995

EFFLUENT LIMITS: **Outfall 001/002 Condenser Cooling Water & Cooling Tower Blowdown**							
Parameter	Min.	Avg.	Max.	Parameter	Min.	Avg.	Max.
Flow MGD		**NL**	**NL**	**pH s.u.**	**6.0**		**9.0**
Heat Rejection BTU/H			**5.58 x 10^8**	**Total Residual Chlorine, mg/L**		**.022 Monthly average**	**.032**
Temperature, River Intake °C	**NL**	**NL**	**NL**	**Temperature °C**	**NL**	**NL**	**NL**
1/3 months							
Total Nitrogen, Intake, mg/L		**NL**	**NA**	**Total Phosphorous, Intake, mg/L**		**NL**	**NA**
1/6 months							
Dissolved Copper, Intake, ug/L		**NL**	**NA**	**Total Hardness as $CaCO_3$**		**NL**	**NA**
1/year							
Chronic Toxicity – *C. dubia*		**NA**	**NL**	**Chronic Toxicity – *P. promelas***		**NA**	**NL**

Receiving Stream	**Quantico Creek**
Basin	**Potomac River**
Discharge Point (LONG)	**38° 32′ 12″**
Discharge Point (LAT)	**77° 17′ 00″**

EFFLUENT LIMITS Outfall 201 (internal outfall) Cooling Tower Blowdown – Unit 5							
Parameter	Min.	Avg.	Max.	Parameter	Min.	Avg.	Max.
Flow, MGD		**NL**	**NL**	**pH, s.u.**	**6.0**		**9.0**
Free Available Chlorine, mg/L		**0.2**	**0.2**	**Total Chromium**		**0.2**	**0.2**
Total Zinc		**1.0**	**1.0**				
1/3 months							
Nitrogen. Total mg/L		**NL**	**NA**	**Phosphorous, Total, mg/L**		**NL**	**NA**
1/year							
126 Priority Pollutants		**ND**	**ND**				

Receiving Stream	**Outfall 001/002**
Basin	**Potomac River**
Discharge Point (LONG)	**38° 32′ 11″**
Discharge Point (LAT)	**77° 16′ 57″**

EFFLUENT LIMITS: **Outfall 202 (internal outfall) Cooling Tower Blowdown – Unit 6**							
Parameter	Min.	Avg.	Max.	Parameter	Min.	Avg.	Max.
Flow, MGD		**NL**	**NL**	**pH, s.u.**	**6.0**		**9.0**
Free Available Chlorine, mg/L		**0.2**	**0.2**	**Total Chromium**		**0.2**	**0.2**
Total Zinc		**1.0**	**1.0**				
1/3 months							
Nitrogen. Total mg/L		**NL**	**NA**	**Phosphorous, Total, mg/L**		**NL**	**NA**
1/year							
126 Priority Pollutants		**ND**	**ND**				

Receiving Stream	**Outfall 001/002**
Basin	**Potomac River**
Discharge Point (LONG)	**38° 32′ 11″**
Discharge Point (LAT)	**77° 16′ 57″**

EFFLUENT LIMITS: **Outfall 003– Condenser Cooling Water – Unit 4**							
Parameter	Min.	Avg.	Max.	Parameter	Min.	Avg.	Max.
Flow MGD		**NL**	**NL**	**pH s.u.**	**6.0**		**9.0**
Temperature °C	**NL**	**NL**	**NL**	**Heat Rejection BTU/H**			**1.14 X 10^9**
Total Residual Chlorine, mg/L		**.022 monthly**	**.032**	**Dissolved Copper, ug/L**		**NL**	**NL**
1/year							
Chronic Toxicity – *C. dubia*		**NA**	**NL**	**Chronic Toxicity – *P. promelas***		**NA**	**NL**

Receiving Stream	**Quantico Creek**
Basin	**Potomac River**
Discharge Point (LONG)	**38° 32′ 17″**
Discharge Point (LAT)	**77° 16′ 58″**

EFFLUENT LIMITS: **Outfall 004– Low Volume Waste Settling Pond**							
Parameter	Min.	Avg.	Max.	Parameter	Min.	Avg.	Max.
Flow, MGD		**NL**	**NL**	**pH s.u.**	**6.0**		**9.0**
Temperature °C	**NL**	**NL**	**NL**	**Heat Rejection BTU/H**			**1.9 X 10^8**
Total Residual Chlorine, mg/L		**.026 monthly**	**.038**	**Total Suspended Solids, mg/L**		**30**	**100**
Oil & Grease, mg/L		**15**	**20**				
1/6 months							
Total Nitrogen, mg/L		**NL**		**TKN, mg/L**		**NL**	
NO^2-NO^3-N, mg/L		**NL**		**Ammonia-N, mg/L**		**NL**	
Total Phosphorous, mg/L		**NL**					
1/year							
Chronic Toxicity – *C. dubia*		**NA**	**NL**	**Chronic Toxicity – *P. promelas***		**NA**	**NL**

Receiving Stream	**Mouth of Quantico Creek**
Basin	**Potomac River**
Discharge Point (LONG)	**38° 31′ 55″**
Discharge Point (LAT)	**77° 17′ 04″**

EFFLUENT LIMITS: **Outfall 005– Ash Pond E**							
Parameter	Min.	Avg.	Max.	Parameter	Min.	Avg.	Max.
Flow MGD		**NL**	**NL**	**pH s.u.**	**6.0**		**9.0**
Total Suspended Solids, mg/L		**30**	**100**	**Oil & Grease mg/L**		**15**	**20**
Total Nitrogen, mg/L		**NA**	**NA**	**TKN, mg/L**		**NA**	**NA**
NO2-NO3 - N, mg/L		**NA**	**NA**	**Ammonia-N, mg/L**		**NA**	**NA**
Total Phosphorous, mg/L		**NA**	**NA**	**Nickel. Dissolved, ug/L**		**NA**	**NL**
1/year							
Chronic Toxicity – *C. dubia*		**NA**	**NL**	**Chronic Toxicity – *P. promelas***		**NA**	**NL**

Receiving Stream	**UT to Quantico Creek**
Basin	**Potomac River**
Discharge Point (LONG)	**38° 33′ 6.89″**
Discharge Point (LAT)	**77° 17′ 36.8″**

EFFLUENT LIMITS: **Outfall 501 (internal outfall) – Metals Cleaning Waste**							
Parameter	Min.	Avg.	Max.	Parameter	Min.	Avg.	Max.
Flow MGD		**NL**	**NL**	**Oil & Grease mg/L**		**15**	**20**
Total Suspended Solids, mg/L		**30**	**100**	**Total Iron, mg/L**		**1.0**	**1.0**
Total Copper, mg/L		**1.0**	**1.0**				

Receiving Stream	**Ash Pond E**
Basin	**Potomac River**
Discharge Point (LONG)	**38° 32′ 58″**
Discharge Point (LAT)	**77° 17′ 20″**

EFFLUENT LIMITS: **Outfall 502 (internal outfall) – Oily Waste Treatment Basin**							
Parameter	Min.	Avg.	Max.	Parameter	Min.	Avg.	Max.
Flow, MGD		**NA**	**NL**	**TPH, mg/L**		**NL**	**NL**
Oil & Grease, mg/L		**15**	**20**	**TSS, mg/L**		**30**	**100**
TPH, Oil Range Organics, mg/L		**NL**	**NL**				

Receiving Stream	**Ash Pond E**
Basin	**Potomac River**
Discharge Point (LONG)	**38° 32′ 42″**
Discharge Point (LAT)	**77° 16′ 40″**

EFFLUENT LIMITS: **Outfall 007– Intake Screen Backwash Water 1/3 months**			
Parameter	Min.	Avg.	Max.
Flow, MGD		**NL**	**NL**

Receiving Stream	**Potomac River**
Basin	**Potomac River**
Discharge Point (LONG)	**38° 32′ 9.8″**
Discharge Point (LAT)	**77° 16′ 45.8″**

EFFLUENT LIMITS: **Outfall 008– Intake Screen Well Freeze Protection 1/3 months**			
Parameter	Min.	Avg.	Max.
Flow, MGD		**NL**	**NL**

Receiving Stream	**Potomac River**
Basin	**Potomac River**
Discharge Point (LONG)	**38° 32′ 10″**
Discharge Point (LAT)	**77° 16′ 46″**

EFFLUENT LIMITS: **Outfall 009– Intake Screen Backwash Water 1/3 months**				
Parameter	Min.	Avg.	Max.	
Flow, MGD		**NL**	**NL**	
	Receiving Stream		**Potomac River**	
	Basin		**Potomac River**	
	Discharge Point (LONG)		**38° 32′ 11.5″**	
	Discharge Point (LAT)		**77° 16′ 45.6″**	

Problems identified at last inspection **- November 8, 2011**:	Corrected	Not Corrected
1. Notify DEQ when repairs to Ash Pond D have been completed. **Repairs began December 21, 2011, and were completed and the slope seeded on April 11, 2012.**	[**X**]	[ ]
2. Submit a copy of the latest calibration of the pH meter thermister and sample refrigerator thermometer to an NIST traceable thermometer. This document should show the temperatures at which the lab equipment was checked against the NIST thermometer. **Received via email on December 9, 2011 from K. Homza.**	[**X**]	[ ]
3. The Edition of Standard Methods referenced for compliance analyses should be included on laboratory bench sheets. Specifying the edition used in the laboratory is important because QA/QC requirements can change between editions. **The bench sheets have been revised to include the Standard Methods edition referenced.**	[**X**]	[ ]
4. The lab bench sheet for outfalls with Total Residual Chlorine and/or Free Available Chlorine limits have the following statement at the top: "Total Residual Chlorine: Limit: No greater than 0.2 mg/L (For *Not More Than* 2 hours during a 24 hour period) The permit's QL for TRC is 0.1 mg/L; the permit limits are much lower. Please review the bench sheets and either correct or explain this statement. **The benchsheets have been corrected.**	[**X**]	[ ]

SUMMARY – August 2014

COMMENTS:

- **There have been several instances of unauthorized discharges at this facility. DEQ was properly notified in each instance. Outfalls affected were 004 in April 2012, S42 in February 2014, S31 in March 2014, and 003 in August 2014.**

- **There are new signs identifying the industrial and storm water outfalls throughout the facility.**

- **An outage is planned or Unit 5 between September 1 and December 21, 2014.**

REQUEST for CORRECTIVE ACTION:

- **Keep DEQ informed on arrangements for access to Outfalls 001/002 and 003 during the construction of the third rail line by CXS.**

- **Inform DEQ when the area around the discharge structure for Outfall 502 has been repaired.**

- **Please supply a copy of the 2014 Annual Comprehensive Inspection Report to DEQ for review.**

DEQ

WASTEWATER FACILITY INSPECTION REPORT PART 1

Inspection date: **August 27, 2014**

Date form completed: **September 24, 2014**

Inspection by: **S. Allen**

Inspection agency: **DEQ NRO**

Total Time Spent: **40 hours**

Announced: **Yes**

Reviewed by:

Scheduled: **Yes**

Present at inspection: **Susan Mackert – DEQ**
Jeff Marcell, Keith Homza, Barbara Monteiro - Dominion Power

TYPE OF FACILITY:

	Domestic	**Industrial**	
[ ] Federal	[ ] Major	[**X**] Major	[ ] Primary
[ ] Nonfederal	[ ] Minor	[ ] Minor	[**X**] Secondary

Type of inspection:

[**X**] Routine
[ ] Compliance/Assistance/Complaint
[ ] Reinspection

Date of last inspection: **November 18, 2011**
Agency: **DEQ NRO**

Population served: **NA**

Connections served: **NA**

DATA VERIFIED IN PREFACE	[**X**] Updated	[ ] No changes	
Has there been any new construction?	[ ] Yes	[**X**] No	
If yes, were plans and specifications approved?	[ ] Yes	[ ] No	[**X**] NA

DEQ approval date:

(A) PLANT OPERATION AND MAINTENANCE

1. Class and number of licensed operators:	**NA**		
2. Hours per day plant is manned:	**24**		
3. Describe adequacy of staffing.	[**X**] Good	[ ] Average	[ ] Poor
4. Does the plant have an established program for training personnel?	[**X**]Yes	[ ] No	
5. Describe the adequacy of the training program.	[**X**] Good	[ ] Average	[ ] Poor
6. Are preventive maintenance tasks scheduled?	[**X**]Yes	[ ] No	
7. Describe the adequacy of maintenance.	[**X**] Good	[ ] Average	[ ] Poor*
8. Does the plant experience any organic/hydraulic overloading? If yes, identify cause and impact on plant:	[ ] Yes	[ ] No	[**X**] NA
9. Any bypassing since last inspection?	[ ] Yes	[ ] No	[**X**] NA
10. Is the standby electric generator operational?	[ ] Yes	[ ] No*	[**X**] NA
11. Is the STP alarm system operational?	[ ] Yes	[ ] No*	[**X**] NA
12. How often is the standby generator exercised?	**NA**		
Power Transfer Switch?	**NA**		
Alarm System?	**NA**		
13. When was the cross connection control device last tested on the potable water service?	**NA**		
14. Is sludge being disposed in accordance with the approved sludge disposal plan?	[ ] Yes	[ ] No	[**X**] NA
15. Is septage received by the facility?	[ ] Yes	[ ] No	[**X**] NA
Is septage loading controlled?	[ ] Yes	[ ] No	[**X**] NA
Are records maintained?	[ ] Yes	[ ] No	[**X**] NA
16. Overall appearance of facility:	[**X**] Good	[ ] Average	[ ] Poor

Comments:

(B) PLANT RECORDS

1. Which of the following records does the plant maintain?

Operational Logs for each unit process	[X] Yes	[ ] No	[ ] NA
Instrument maintenance and calibration	[X] Yes	[ ] No	[ ] NA
Mechanical equipment maintenance	[X] Yes	[ ] No	[ ] NA
Industrial waste contribution (Municipal Facilities)	[ ] Yes	[ ] No	[X] NA

2. What does the operational log contain?

[X] Visual observations	[X] Flow measurement
[X] Laboratory results	[ ] Process adjustments
[ ] Control calculations	[ ] Other (specify)

Comments:

3. What do the mechanical equipment records contain?

[X] As built plans and specs	[X] Spare parts inventory
[X] Manufacturers instructions	[X] Equipment/parts suppliers
[X] Lubrication schedules	[ ] Other (specify)

Comments:

4. What do the industrial waste contribution records contain **NA** (Municipal Only)?

[ ] Waste characteristics	[ ] Locations and discharge types
[ ] Impact on plant	[ ] Other (specify)

Comments:

5. Which of the following records are kept at the plant and available to personnel?

[X] Equipment maintenance records	[X] Operational Log
[ ] Industrial contributor records	[X] Instrumentation records
[X] Sampling and testing records	

6. Records not normally available to plant personnel and their location: **None**

7. Were the records reviewed during the inspection? [X] Yes [ ] No

8. Are the records adequate and the O & M Manual current? [X] Yes [ ] No

9. Are the records maintained for the required 3-year time period? [X] Yes [ ] No

Comments:

(C) SAMPLING

1. Do sampling locations appear to be capable of providing representative samples? [**X**] Yes [ ] No*
2. Do sample types correspond to those required by the VPDES permit? [**X**] Yes [ ] No*
3. Do sampling frequencies correspond to those required by the VPDES permit? [**X**] Yes [ ] No*
4. Are composite samples collected in proportion to flow? [ ] Yes [ ] No* [**X**] NA
5. Are composite samples refrigerated during collection? [ ] Yes [ ] No* [**X**] NA
6. Does plant maintain required records of sampling? [**X**] Yes [ ] No*
7. Does plant run operational control tests? [ ] Yes [ ] No [**X**] NA

Comments:

(D) TESTING

1. Who performs the testing? [**X**] Plant [**X**] Central Lab [**X**] Commercial Lab

Name: **Possum Point Lab – pH, TRC, Free CL2**

Dominion Laboratory Services - Nutrients, TPH, Oil & Grease, Metals, TSS
11201 Old Stage Road, Chester, VA 23836 VELAP ID #450080

Coastal Bioanalysts, Inc. - Toxicity
6400 Enterprise Court, Gloucester, VA 23061 VELAP# 460030

If plant performs any testing, complete 2-4.

2. What method is used for chlorine analysis? **Hach DR 820**
3. Does plant appear to have sufficient equipment to perform required tests? [**X**] Yes [ ] No*
4. Does testing equipment appear to be clean and/or operable? [**X**] Yes [ ] No*

Comments:

(E) FOR INDUSTRIAL FACILITIES WITH TECHNOLOGY BASED LIMITS ONLY

1. Is the production process as described in the permit application? (If no, describe changes in comments)
[ ] Yes [ ] No [**X**] NA
2. Do products and production rates correspond as provided in the permit application? (If no, list differences)
[ ] Yes [ ] No [**X**] NA
3. Has the State been notified of the changes and their impact on plant effluent? Date:
[ ] Yes [ ] No* [**X**] NA

Comments:

Site Visit

We arrived at the guard booth at 08:40 am, were checked in, and proceeded to meet Mr. Marcell in the lobby of the Administration building. We had a short opening conference with Mr. Marcell, Keith Homza, and Barbara Monteiro, and then Ms. Mackert and I toured facility with Mr. Marcell, Mr. Homza, and Ms. Monteiro using Dominion Vehicle. Photos by S. Mackert.

Outfalls 001/002, and 003 - There was evidence of fishermen along the river bank despite no trespassing signs. Mr. Homza pointed out naturally occurring green algae in water.

Outfall 003 - Path to river is passable but pretty eroded. Mr. Marcell said they have a work order in to have a contractor repair the path but they are waiting on VDOT to inspect their easement before initiating repairs. The outfall appears in good shape (photo 4). A discharge of lube oil from this outfall in August 2014 was properly reported to DEQ's Pollution Response Program.

Outfall 001/002 –Water is discharged though Outfall 002 only; Outfall 001 is blocked. Both outfalls are located in the same area (photos 1 and 2). No problems noted. Mr. Marcell stated that CSX Corporation plans to add a 3rd rail line to their tracks to service the Cherry Hill VRE station. The current plan will put a retaining wall right where the path between Outfall 003 and Outfall 001/002 is now. Dominion –Possum Point is in discussions with CSX about providing and maintaining access to both locations during and after the rail expansion.

Ash Pond D (Delta Pond) – A spoils area where filter cake from Unit Six is brought is located at one end of this pond (photo 6). Filter cake is left at the site one to two times per day. The piles dry and then are spread out to expand the drying area or pushed over the edge. There were also some darker piles of mud ash from Ash Pit Five and some piles of excavated soil on site. Excavated soil is stored here and then used as back fill for the projects. Any fill pile left over is spread out expand the drying area.

The water level in the pond was far below the decant tower (photo 8). For this pond to discharge, water would have to reach the decant tower and enter it through perforations on the outside. The discharge valve would also have to be manually opened. Flow would pass through a discharge pipe under the dam wall, daylight on other side and follow a concrete causeway (photo 9) to Ash Pond E.

Outfall 501 (Metals Cleaning Ponds) – North and South in series. Lime and polymer are added as water flows from the north Pond to the south Pond; the valve between the two ponds is manually opened and monitored. Discharge from the South Pond is via Outfall 501 to Ash pond E (photo 10).

Mr. Homza said that the liners are in good shape. One end of the North pond appeared pretty silted in with lots of vegetation growing.

Outfall 005 (Ash Pond E) – Mr. Marcell said the pond is about two thirds full of ash, and one third open water (photo 11). Phragmites became established naturally and is growing well. ~~The US Environmental Protection Agency (EPA) is to come out and do a determination on this ash pond in December 2014.~~ The EPA coal ash determination is expected out in December 2014.

The stairway down to the Outfall 005 (photo 12) has been braced up, although there are still some gaps and splintered wood. Water being discharged appeared somewhat cloudy; Mr. Homza said that TSS monitoring at this outfall has not shown any problems. Jeff said standing water below ponds on the outfall side is due to beaver construction in the VDOT culvert.

Outfall 502 (Oily Waste Treatment Basin (photo 13) – This basin was actively discharging during this inspection. The surface of the water has red algae and other floating material, also possibly some oily product. The pond was last skimmed two or three years ago. The discharge pipe is located sub-surface so floating debris is not discharged. Mr. Marcell said they will discharge from this pond for two to three days; the pond depth is regularly checked while discharging.

The area around the discharge structure was severely eroded, so that access to the structure was surrounded with yellow caution tape. Mr. Marcell said there is a work order in to repair.

One of the two above ground storage tanks was undergoing inspection while we were on site. MR. Marcell stated that both are due for inspection in 2015, but they started early so that one will be completed this year and the second tank will probably be inspected in 2015.

Portable RO trailer and Demineralization trailer – these trailers (photo 14) are on site to supplement the permanent RO system during the summer months, scheduled until September 2014. Reject water is discharged to the Demin plant's treatment system and eventually out through Outfall 004.

Dominion plans to continue the use of portable RO and Demin trailers in the future. The trailers will be located in same area and DEQ will be notified when the trailers are brought in.

Outfalls 007-009 are all located in the same area.

Outfall 007 is a divided discharge with one half of the flow from intake screens 1 & 2, the other half from screens 3 & 4. The flows are separated by a metal divider but discharge essentially at the same location.

Outfall 008 – discharges heated water from Unit Five through three separate pipes that pass through concrete bunker (photo 15).

Outfall 009 – was a temporary outfall discharging flow from screens 3 & 4 (photo 16). This flow normally goes to Outfall 007, but was discharged from the side of a bunker while repairs were being made to the walkway between the two bunkers.

Outfall 004 – Low volume waste settling pond. Staircase looks good, no problem noted (photo 4). CSX put in a 2nd rail line several years ago, and the culverts under the tracks are blocked, creating a wet flooded area that Mr. Marcel believes could affect the settling pond and discharge from Outfall 004 under certain conditions.

Outfall 201/202 – the corroded/leaking piping for Outfall 202 noted near the seal pit during the last inspection has been replaced (photo 3).

STORMWATER MANAGEMENT

A SWPPP was on site, signed, and up to date.

The facility has 15 stormwater outfalls, nine of which have been determined to be industrially influenced. Of these nine outfalls, several have been deemed representative of others, resulting in four outfalls that must be monitored quarterly. All outfalls are included in the annual comprehensive evaluation.

Quarterly visual inspections at stormwater outfalls S5, S42, S61, and S95 were conducted and documented by Keith Homza in 2012 2013, and 2014.

Quarterly site inspections of the facility have been done by Jeff Marcell. The storm water elements are included on the weekly SPCC inspection check list and inspections are documented during the last month of any particular quarter to meet this permit SW requirement. SPCC inspections are conducted daily and weekly.

Annual comprehensive inspections were conducted August 13, 2012, July 18, 2013, and August 7, 2014. The 2014 compliance evaluation report was being written and the SWPPP being updated. Mr. Marcell said he will send me a copy of the SWPPP once complete.

Outfalls S5 and S42 - receive stormwater that may be in contact with water from the cooling towers for Unit 5. Cooling water is untreated - no additives or fungicides used. When the tower is running, spray that collects on the ground may enter drop inlets that connect to S42 and S5. Drop inlets in this area are painted red to indicate a direct discharge to the Potomac River.

Outfall S42 - outfall is representative for stormwater outfalls near cooling tower for Unit 5. All these storm water inlets are painted red (photo 19); all connect to one drop inlet prior to the discharge point. The Outfall is located partway down the riverbank (photo 20).

Outfall S5 - collects water from around 2nd cooling tower for Unit 5. The Outfall is located partway down the riverbank (photo 21).

Outfall S61 - located near the seal pit. Blue drop inlets direct water to stormwater Outfall 61 (photo 22), which connects into the discharge weir for Outfalls 001/002 and discharges though that outfall.

Outfall S95 is located near the oily waste treatment basin (photos 17 and 18). The outfall is down a steep wooded slope. Mr. Homza said he collects samples for visual monitoring at the pond side of the discharge pipe. Stormwater to this pond potentially contacts materiel in two dumpsters - one for oily debris and one for metals. Mr. Marcell said the pond also receives water from a nearby CSX stormwater pond.

GROUNDWATER

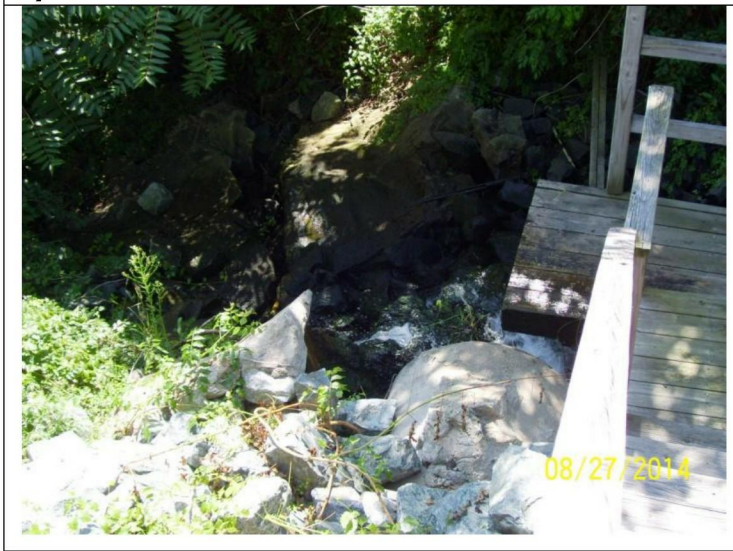
Groundwater monitoring wells are located at Ash Ponds D and E and at the Oily Waste Treatment Basin. A revised Groundwater Monitoring Plan was received by DEQ NRO on July 5, 2013; the 2013 annual groundwater monitoring report was received May 1, 2014 (an updated report was received on May 27, 2014).

1) Outfall 001/002.

2) Outfall 001/002 showing new identifying sign.

3) Outfalls 201 and 202.

4) Outfall 003.



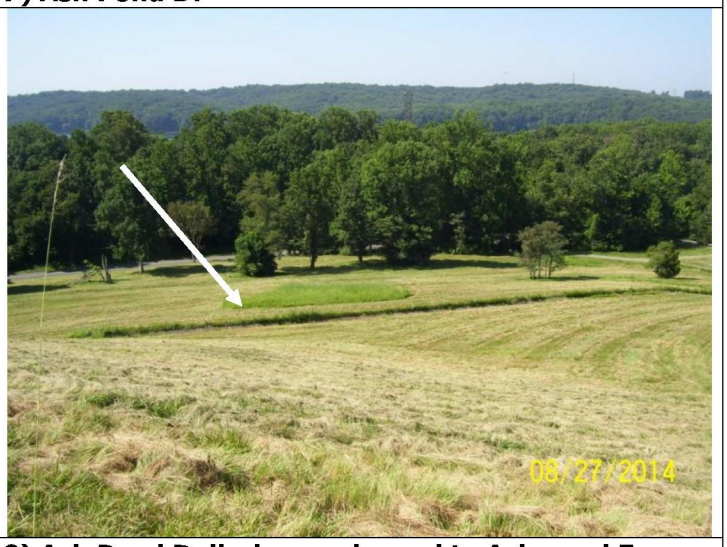
5) Outfall 004

Facility Name: Dominion – Possum Point
VPDES Permit No. VA0002071
Site Inspection Date: August 27, 2014
Photos by: Susan Mackert
Layout by: S. Allen

6) Spoils pile drying area at Ash Pond D.

7) Ash Pond D.

8) Decant tower for Ash Pond D. Water level far below discharge structure.



9) Ash Pond D discharge channel to Ash pond E.

10) New sign at Outfall 501 from south metals pond.

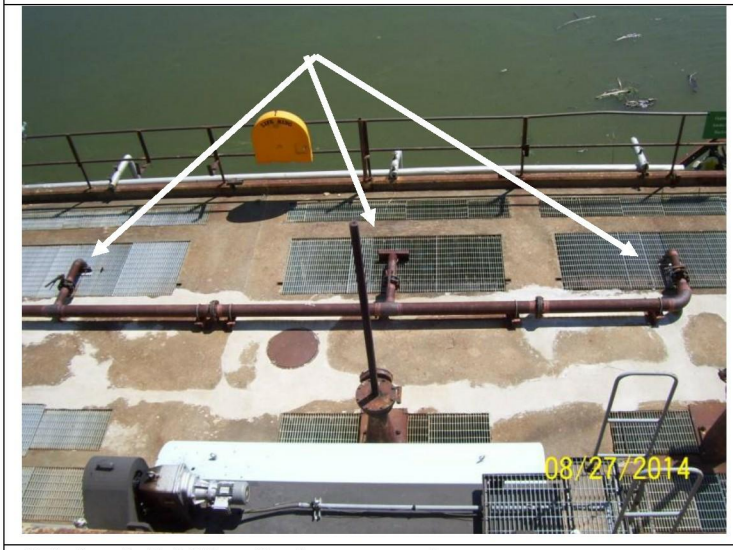
Facility Name: Dominion – Possum Point
VPDES Permit No. VA0002071
Site Inspection Date: August 27, 2014
Photos by: Susan Mackert
Layout by: S. Allen

11) Ash Pond E

12) Outfall 005 from Ash pond E.

13) Outfall 502 at Oily Waste Treatment Basin.

14) Portable RO water and Demin trailers (photo brightened).



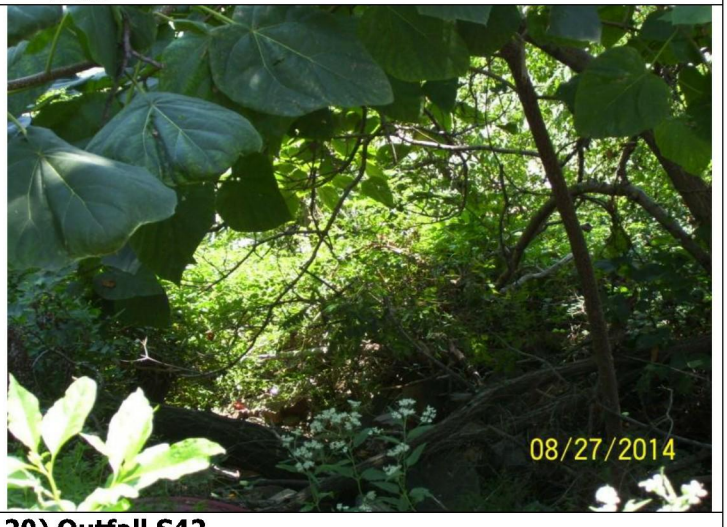
15) Outfall 008 – 3 pipes entering grates.

16) Area of outfall 009 (side of structure).

17) New sign at stormwater outfall S95.

18) Visual inspection point for storm water Outfall S95.

19) Storm water inlet near cooling towers for Unit 5 discharge to S42.



20) Outfall S42.

21) Outfall S5.

22) SW Outfall S61 near Outfalls 201 and 202.

DEPARTMENT OF ENVIRONMENTAL QUALITY - WATER DIVISION
LABORATORY INSPECTION REPORT
09/2014

PERMIT #:	INSPECTION DATE:	PREVIOUS INSP. DATE:	PREVIOUS EVALUATION:	TIME SPENT:
VA0002071	August 27, 2014	November 8, 2011	No Deficiency	5 hours

NAME/ADDRESS OF FACILITY:	FACILITY CLASS:	FACILITY TYPE:	UNANNOUNCED INSPECTION?
Dominion - Possum Point Power Station 19000 Possum Pt. Rd. Dumfries, VA 22026	(X) MAJOR ( ) MINOR ( ) MINOR (Small) ( ) VPA	( ) MUNICIPAL (X) INDUSTRIAL ( ) FEDERAL	( ) YES (X) NO **FFY-SCHEDULED INSPECTION?** (X) YES ( ) NO

INSPECTOR(S):	REVIEWER(S):	PRESENT AT INSPECTION:
S. Allen	Edward L. Stat	Keith Homza, Barbara Monteiro - Dominion Power

LABORATORY EVALUATION	DEFICIENCIES?	
	Yes	No
LABORATORY RECORDS		X
GENERAL SAMPLING AND ANALYSIS		X
pH PROCEDURE		X
TOTAL RESIDUAL CHLORINE PROCEDURES		X
DISSOLVED OXYGEN PROCEDURES		X
TEMPERATURE PROCEDURES		X

Revised: 06-2011

VELAP CERTIFICATION (on site Environmental Laboratory) **Laboratory not located on premises; samples sent to central lab for Dominion Power in Chester, VA;**			**Yes**	**No**
Does the laboratory have VELAP certification (interim or final)?			**X**	
– Document the laboratory's VELAP laboratory number: **Dominion Laboratory Services, 11201 Old Stage Road, Chester, VA 23836**			**VELAP ID #450080** **Certificate 2947**	
– Document the effective date of the VELAP certification:			**June 15, 2014**	
– Document the expiration date of the VELAP certification			**June 14, 2016**	
– List the certified parameters:	**TKN, TP, TN, O&G, TSS, Metals**			
VELAP ACCREDITATION (Commercial Environmental Laboratory)			**Yes**	**No**
IS A VELAP ACCREDITED LAB USED FOR OTHER PERMIT REQUIRED ANALYSES? VELAP#, LAB NAME, ADDRESS and LIST PARAMETERS:			(Yes)	(No)
VELAP #	LAB NAME	PARAMETERS:		
460021 2906	**Air, Water, & Soil Laboratories, Inc**	**TPH – GRO, DRO and ORO**	**X**	
460030 2982	**Coastal Bioanalysts, Inc.**	**Toxicity**	**X**	
IF PERMIT REQUIRED SAMPLE ANALYSIS IS PERFORMED AT ANOTHER LOCATION, ARE SHIPPING PROCEDURES ADEQUATE?			**X**	(No)
COPIES: (**X**) DEQ - RO; (**X**) Owner, ( ) Other:				

PERMIT #: VA0002071

LABORATORY RECORDS SECTION

LABORATORY RECORDS INCLUDE THE FOLLOWING:

X	SAMPLING DATE	X	ANALYSIS DATE		CONT MONITORING CHART
X	SAMPLING TIME	X	ANALYSIS TIME	X	INSTRUMENT CALIBRATION
X	SAMPLE LOCATION	X	TEST METHOD	X	INSTRUMENT MAINTENANCE
				X	CERTIFICATE OF ANALYSIS

WRITTEN INSTRUCTIONS INCLUDE THE FOLLOWING:

X	SAMPLING SCHEDULES		CALCULATIONS	X	ANALYSIS PROCEDURES

	YES	NO	N/A
DO ALL ANALYSTS INITIAL THEIR WORK?	X		
DO BENCH SHEETS (or LOG BOOK) INCLUDE ALL INFORMATION NECESSARY TO DETERMINE RESULTS?	X		
IS THE DMR COMPLETE AND CORRECT? LIST MONTH(S) REVIEWED: **April, May, June, and August 2014**	X		
ARE ALL MONITORING VALUES REQUIRED BY THE PERMIT REPORTED?	X		
DOES CHAIN OF CUSTODY DOCUMENT PROPER SAMPLE PRESERVATION WAS MET?	X		
WHEN THE CERTIFICATE OF ANALYSIS CONTAINS FLAGGED DATA IS THE 'FLAG' REPORTED ON THE DMR? **There were no flagged results reported on the Certificates of Analysis for the months reviewed.** **Lab reports for samples collected April 8, 2014, April 14, 2014, and May 2014 each had a quality control sample flagged but the laboratory did not identify these as affecting sample results on the Certificates of Analysis provided to the permittee.**			X

GENERAL SAMPLING AND ANALYSIS SECTION

	YES	NO	N/A
ARE SAMPLE LOCATIONS ACCORDING TO PERMIT REQUIREMENTS?	X		
ARE PERMIT REQUIRED SAMPLE COLLECTION PROCEDURES APPROPRIATE?	X		
ARE EFFLUENT SAMPLES REPRESENTATIVE OF THE MONITORED ACTIVITY? •	X		
ARE PERMIT REQUIRED COMPOSITE SAMPLES FLOW PROPORTIONAL? **NOTE:** Equal volume composite aliquots are acceptable ***if the measured flow for each aliquot is within ± 10% of the monitoring period's average flow***. Some permits specify how the composite is to be taken (e.g., 5G/8HC).			X
IS COLLECTION SAMPLE EQUIPMENT ADEQUATE?	X		
IS FLOW MEASUREMENT ACCORDING TO PERMIT REQUIREMENTS?	X		

DEPARTMENT OF ENVIRONMENTAL QUALITY – WATER DIVISION
LABORATORY INSPECTION REPORT SUMMARY

FACILITY NAME:	**Dominion – Possum Point**	Permit #:	**VA0002071**	INSPECTION DATE:	**August 27, 2014**
LABORATORY EVALUATION			No required actions at this time		
		X	**REQUIRED CORRECTIVE ACTION(s) IDENTIFIED**		

SUMMARY of REQUEST FOR CORRECTIVE ACTION

Lab Records

Laboratory Records section deficiency and required action:
None Noted

Recommendation:

Samples temperature recorded when samples arrive at Dominion Laboratory Services tend to be very low (down to 0.1 C°). While no temperatures recorded were below 0, or noted as frozen, staff may want to adjust the amount of ice used while shipping samples to the lab.

General Sampling and Analysis

General Sampling and Analysis section deficiency and required action:
1. **None Noted**

pH Analysis

pH deficiency and required action:
1. **None Noted**

RECCOMENDATION

1. **Laboratory staff is currently performing a two point calibration with pH 7 and pH 10 buffers. Standard Methods 4500-H+ B describes a three point calibration. If the pH meter is capable of doing a three point calibration, lab staff should switch from a two point to three point calibration.**

TRC Analysis

TRC deficiency and required action:
None Noted

Temperature Analysis

Temperature deficiency and required action:

None Noted

OTHER – Comments or Observations

Revised: 06-2011

ANALYST:	**Keith Homza**	VPDES NO	**VA0002071**

Parameter: Hydrogen Ion (pH)
Method: Electrometric
04/2014

Meter: **Thermo Scientific Orion 3 Star**

METHOD OF ANALYSIS:

X	21st Edition of Standard Methods (SM 21) – 4500-H^+ B-2000 (SM 21 pH) - **Standard Methods on-line edition**
	22nd Edition of Standard Methods (SM 22), or Online Editions of Standard Methods – 4500-H^+ B-2011 (SM 22 pH)

		Y	N
	pH is a method-defined analyte so modifications are not allowed. [40 CFR Part 136.6]		
1)	Is a certificate of operator competence or initial demonstration of capability available for each analyst/operator performing this analysis? **NOTE**: Analyze 4 samples of known pH; you may use an external source of buffers or other known standards (different lot/manufacturer than buffers used to calibrate meter). Recovery for each of the 4 samples must be +/- 0.1 SU of the known concentration of the sample. [SM 1020 B.1]	**X**	
2)	Is a duplicate sample analyzed daily? [Table 4020:I] **NOTE:** Single samples collected for measurement require duplicate samples. Duplicate samples are not required for *in situ* measurements (i.e., a single *in situ* measurement).	**X**	
3)	Is the pH of duplicate sample within 0.1 SU of the original sample? [SM 21 pH or SM 22 pH B 6.]		
4)	Is there a written procedure for which result will be reported on DMR (Sample or Duplicate)? [DEQ – based on EPA Good Laboratory Practices Standards]	**X**	
5)	Is the written procedure for selection of results to be reported on the DMR (Sample or Duplicate) followed by the analysts? [DEQ – based on EPA Good Laboratory Practices Standards]	**X**	
6)	Is a Laboratory Control Sample (LCS) tested at least annually? [SM 21 B 2. or SM 22 1020 B 3.] **NOTE:** LCS should be a purchased Proficiency Test (PT) sample or a different buffer [value] other than ones used for calibration of the meter.	**X**	
7)	Is the electrode in good condition (no chloride precipitate, scratches, deterioration, etc.)? [SM 21 pH or SM 22 pH 2.b./c. and 5.b.]	**X**	
8)	Is electrode storage solution in accordance with manufacturer's instructions? [SM 21 pH or SM 22 pH 4.a. and Mfr.]	**X**	
9)	Is meter calibrated on at least a daily basis using three buffers all of which are at the same temperature? [SM 21 pH or SM 22 pH 4.a.] **NOTE**: Start with Buffer 7 unless manufacturer's instructions state otherwise. **NOTE:** If meter is not capable of 3 buffer calibration use 2 buffers bracketing the expected sample pH and then measure a 3rd buffer (the measurement value must be ±0.1 SU), and then reread buffer 7 to ensure ±0.1 SU.		**X**
10)	After calibration, is a buffer analyzed as a check sample to verify that calibration is correct? Verification measurement should be within +/- 0.1 SU. [SM 21 1020 B 10.c. or SM 22 1020 B 11.c.]	**X**	

11)	Is calibration verification measurement repeated with every 10 samples and at the end of a series of samples? Verification measurement should be within +/- 0.1 SU. [SM 21 pH or SM 22 pH 4020 B 2.b.] **NOTE:** Not applicable if pH meter is calibrated before taking any measurement (e.g., if operator monitors daily pH at more than one facility then calibrate before each measurement).	X	
12)	Do the buffer solutions appear to be free of contamination or growths? [SM 21 pH or SM 22 pH 3.a.]	X	
13)	Are buffer solutions within the listed shelf-life or have they been prepared within the last 4 weeks? [SM 21 pH or SM 22 pH 3.a.]	X	
14)	Is the cap or sleeve covering the access hole on the reference electrode removed when measuring pH? [Mfr.]	X	
15)	Is sample analyzed within 15 minutes of collections? [40 CFR Part 136]	X	
16)	Is the electrode rinsed and then blotted dry between reading solutions (Disregard if a portion of the next sample analyzed is used as the rinsing solution.)? [SM 21 pH or SM 22 pH 4.a and 4.b]	X	
17)	Is the sample stirred gently at a constant speed during measurement? [SM 21 pH or SM 22 pH 4.b.]	X	
18)	Does the meter hold a steady reading after reaching equilibrium? [4.b.]	X	

COMMENTS: **6) Mr. Homza conducts a PT study annually.**

9) Calibration is re-checked with 7, 10, and 4 buffers.

11) Chemists don't analyze more than 10 samples per day; however, a pH 7 buffer check is performed after each outfall sample is analyzed for pH.

9) Laboratory is currently calibrating the meter with 7 and 10 buffers, if the meter is capable of doing a 3 point calibration, is should be done rather than a 2 point calibration.

PROBLEMS: **None noted**

ANALYST:	**Keith Homza**	VPDES NO.	**VA0002071**

Parameter: Total Residual Chlorine (TRC)
Method: DPD Colorimetric (HACH Colorimeters/Spectrophotometers)
04/2014

Instrument: **Hach DR 820**

METHOD OF ANALYSIS:

	HACH Manufacturer's Instructions (Method 8167) plus an edition of *Standard Methods*
X	21st Edition of *Standard Methods* 4500-Cl G-2000 (SM 21 Cl) – **Standard Methods on-line edition**
	22nd Edition of *Standard Methods* 4500-Cl G-2011 (SM 22 Cl)

		Y	N
1)	Is a certificate of operator competence or initial demonstration of capability available for each analyst/operator performing this analysis? **NOTE:** Analyze 4 samples of known TRC. Must use a lot number or source that is different from that used to prepare calibration standards. May not use Spec√ ™. [SM 1020 B.1]	**X**	
2)	Is calibration curve developed with daily verification using a high and a low standard? **NOTE:** May use manufacturer's installed calibration and commercially available chlorine standards, or Spec√ ™, for daily calibration verifications. [SM 21 1020]	**Spec checks run each day of analysis**	
3)	Is a duplicate sample analyzed daily or after every 20 samples if applicable? [SM 21 1020 B.7 or SM 22 4020 B.2.f]	**NA**	
4)	Is there a written procedure for which result will be reported on DMR (Sample or Duplicate)? [DEQ – based on EPA Good Laboratory Practices Standards]	**X**	
5)	Is the written procedure for selection of results to be reported on the DMR (Sample or Duplicate) followed by the analysts? [DEQ – based on EPA Good Laboratory Practices Standards]	**X**	
6)	Is a Laboratory Control Sample (LCS) tested at least annually? [SM 21 B 2. or SM 22 1020 B 3.] **NOTE:** LCS should be a purchased Proficiency Test (PT) sample.	**X**	
7)	Are the DPD Powder Pillows stored in a cool, dry place? [Mfr.]	**X**	
8)	Are the pillows within the manufacturer's expiration date? [Mfr.]	**X**	
9	Are pillows appropriate for the sample size being analyzed and for Total Residual Chlorine	**X**	
10)	Has buffering capability of DPD pillows been checked annually? (Pillows should adjust sample pH to between 6 and 7) [Mfr.]	**X**	
11)	When pH adjustment is required, is H_2SO_4 or NaOH used? [Hach 11.3.1]		
12)	Are cells clean and in good condition? [Mfr]	**X**	
13)	Is the Hach colorimeter program set to measure "TRC, mg/L"? [Mfr.]	**X**	
14)	Is the low range (0.01 mg/L resolution) used for samples containing residuals from 0.1 mg/L - 2.00 mg/L? [Mfr.]	**X**	
15)	Is the 10-mL cell (2.5-cm diameter) used for samples from 0-2.00 mg/L? [Mfr.]		**X**
16)	Are samples analyzed within 15 minutes of collection? [40 CFR Part 136]	**X**	

17)	Is meter zeroed correctly using only sample for the blank analysis? [Mfr. and SM 21 1020 B.4. or SM 22 1020 B.5.]	X	
18)	Is the instrument light screen placed correctly on the meter body when the meter is zeroed and when the sample is analyzed? [Mfr.]	X	
19)	Is the DPD Total Chlorine Powder Pillow mixed into the sample? [Hach 11.1]	X	
20)	Is the analysis made at least three minutes but not more than six minutes after Powder Pillow addition? [Hach 11.2]	X	
21)	If read-out exceeds "2.19 mg/L", is the original sample diluted correctly, and then reanalyzed within 15 minutes of the original collection time? [Hach 1.2 & 2.0]	X	

COMMENTS:

3) Duplicates are run if more than one TRC sample is analyzed on any given day. Chemists have not had to run more than 20 samples in a single day, but would conform with the 5% rule if this was to occur.

6) Mr. Homza conducts a PT study annually.

9) Done in January or February each year.

11) Analyst have not had to adjust sample pH

15) Analysts us a 25 ml vial filled to the 10 ml mark.

PROBLEMS:

None Noted

ANALYST:	**Remote Monitoring**	VPDES NO.	**VA0002071**

Parameter: Temperature
Method: Thermometric
04/2014

METHOD OF ANALYSIS:

	21st Edition of Standard Methods – 2550 B-2000 (SM 21 T)
X	22nd of Standard Methods, or Online Editions of Standard Methods – 2550 B-2010 (SM 22 T)

	NOTE: Temperature is a method-defined analyte so modifications are not allowed. [40 CFR Part 136.6]	**Y**	**N**
1)	Is a standard liquid-in-glass or dial type centigrade thermometer or electronic thermometer (thermistor) with an analog or digital readout used? [SM 22 T 1.] **NOTE:** Use of mercury filled thermometers should be avoided whenever possible.	**X**	
2)	Are the markings on the thermometers permanently affixed to the capillary glass? [SM 21 T 1.]	**NA**	
3)	Does the thermometer/thermistor have a scale adequate to meet permit monitoring requirements? [Permit]	**X**	
4)	Is the liquid in the thermometer continuous with no air spaces? [Permit]	**NA**	
5)	Is the thermometer/thermistor immersed to the appropriate level for the thermometer? [SM 21 T or SM 22 T 1.]	**X**	
6)	Is the thermometer/thermistor immersed until a steady reading is obtained? [SM 21 T or SM 22 T 1.]	**X**	
7)	Do glass thermometers used for field measurements have metal cases? [SM 21 T or SM 22 T 1.]	**NA**	
8)	Is the thermometer/thermistor checked against a NIST/NIST-traceable thermometer at least annually? [SM 21 T or SM 22 T 1.and SM 22 2020 B 2. And Table 2020:II.]	**X**	

COMMENTS:
1) Temperature at Outfalls 001/002, 003, and 004, is measured with thermocouples and recorded via remote monitoring.
8) Thermocouples are calibrated annually.

PROBLEMS: **None noted**

DEPARTMENT OF ENVIRONMENTAL QUALITY - WATER DIVISION
SAMPLE ANALYSIS HOLDING TIME/CONTAINER/PRESERVATION CHECK SHEET
Revised 04/2014 [40 CFR, Part 136.3, Table II]

FACILITY NAME:	**Dominion – Possum Point**	VPDES NO	**VA0002071**	DATE:	**August 27, 2014**

HOLDING TIMES *[Note: Collection period (for composites) and Sample Collection time (end of collection period) must be recorded on the COC.]*						**SAMPLE CONTAINER**				**PRESERVATION** *[Note: Preservation is to occur within 15 minutes of the end of the collection period.]*				
PARAMETER	APPROVED	MET?		LOGGED?		ADEQ. VOLUME		APPROP. TYPE		APPROVED	MET?		CHECKED?	
		Y	N	Y	N	Y	N	Y	N		Y	N	Y	N
pH	15 MIN.	**X**		**X**		**X**		**X**		Within 15 minutes				
CHLORINE	15 MIN.	**X**		**X**		**X**		**X**		Within 15 minutes				
TEMPERATURE	IMMERSION STAB.	**In situ**				**In situ**				N/A - Immediately				
TSS	7 DAYS									≤6° C	**X**		**X**	
AMMONIA	28 DAYS									≤6° C+H_2S0_4 pH<2t	**X**		**X**	
TKN	28 DAYS									≤6° C+H_2S0_4 pH<2	**X**		**X**	
NITRATE+NITRITE	28 DAYS									≤6° C+H_2S0_4 pH<2	**X**		**X**	
TOTAL PHOS.	28 DAYS									≤6° C+H_2S0_4 pH<2	**X**		**X**	
METALS	6 MONTHS									HNO_3 pH<2 Dissolved Metals: 0.45 µm filter immediately	**X**		**X**	
Cr^{+6}	28 DAYS									Dissolved: 0.45 µm filter immediately. Buffer solution plus NaOH within 24 hrs	**X**		**X**	

COMMENTS:	**This permit requires monitoring for Free Available Chlorine at Outfalls 201 and 202, as well as Total Residual Chlorine at Outfalls 001/002, 003, and 004.** **Samples for dissolved metals (Copper, Nickel) are filtered within 15 minutes of collection.** **Total Metals - Chromium, Zinc, Iron, Copper,** **Semiannual groundwater monitoring - dissolved arsenic, barium, cadmium, copper, iron, mercury, lead, nickel, manganese, selenium, silver, vanadium, zinc**
PROBLEMS:	**None noted**

DEPARTMENT OF ENVIRONMENTAL QUALITY - WATER DIVISION
EQUIPMENT TEMPERATURE LOG/THERMOMETER VERIFICATION CHECK SHEET
04/2014

FACILITY NAME:	Dominion – Possum Point			PERMIT NO:		VA0002071		DATE:	August 27, 2014			
EQUIPMENT	Preservation Range	In Range?		Inspector Reading	Checked & Logged Daily?		Correct Increment?		ANNUAL THERMOMETER VERIFICATION			
									Is the NIST / NIST-Traceable Reference Thermometer within the manufacturer's expiration date or recertified yearly?			Yes/No Yes
									DATE CHECKED	MARKED	OFFSET VALUE (Correction)	INSPECT TEMP
		Yes	No	·C	Yes	No	Yes	No		Yes / No	°C	°C
SAMPLE REFRIGERATOR	1-6° C	X		1.5	X		X		10/24/2013	X	-0.2 -0.3	0.6 10.3

PROBLEMS:

EQUIPMENT	Acceptable Variance or Accuracy	In Range?		PROBLEMS:	ANNUAL THERMOMETER VERIFICATION				
					Is the NIST / NIST-Traceable Reference Thermometer within the manufacturer's expiration date or recertified yearly?			Yes/No	Yes
					DATE CHECKED	MARKED		OFFSET VALUE (Correction)	INSPECT TEMP °C
		Yes	No	Problems: None noted		Yes	No	·C	°C
pH METER **Orion 3 star**	± 1° C	**X**			**5/5/2014**	**X**		**+0.2** **+0.2** **+0.1** **+0.1** **+0.1**	**0.4** **10.0** **19.9** **25.2** **49.4**
pH METER (backup) **Orion Allstar A121**	± 1° C	**X**			**10/24/2013**	**X**		**0** **+0.1** **+0.3** **+0.1** **+0.7**	**0.4** **9.9** **19.6** **25.1** **48.7**

EQUIPMENT	Acceptable Variance or Accuracy	In Range?		PROBLEMS:	ANNUAL THERMOMETER VERIFICATION				
					Is the NIST / NIST-Traceable Reference Thermometer within the manufacturer's expiration date or recertified yearly?			Yes/No	Yes
					DATE CHECKED	MARKED		OFFSET VALUE (Correction)	INSPECT TEMP °C
THERMOMETER (EFFLUENT)	± 1° C	Yes	No	Problems: None noted		Yes	No	·C	°C
Outfall 001/002	± 1° C	X			9/19/2013			-0.1 -0.1 -0.1 -0.2	0 10 25 35
Outfall 003					9/19/2013			-0.2 -0.1 -0.3 -0.3	0 10 25 35
Outfall 004					9/18/2013			+0.5 +0.2 +0.2 +0.1	0 10 25 35